

WSDOT Olympic Region

PLAN FOR APPROVAL CHECKLIST

Updated
16-DEC-2005

	Project Title:		
	State Route:	SR M.P.	City/County:

	Designed by:	
	Date Submitted for Review:	Review #
	Date Submitted for Review:	Review #

	Reviewed by:		
	Date Rec'd for Review:	Date Returned:	Review #
	Date Rec'd for Review:	Date Returned:	Review #

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NOTE (WSDOT Olympic Region refers to the complete set of contract plans as a “PS&E” package; developers/local agencies refer to their complete set of contract plans as a “Full-Package Submittal”):

While all vertical and horizontal design elements may not be required to be submitted with the plan for approval they are required for the PS&E or Full Package Submittal; **however** the designer is advised that the representation made in the Plan For Approval must reflect a design that works in all 3-dimensions, and meets design criteria for vertical and cross-section design elements as well as horizontal. It is prudent to check the following as the Plan For Approval is being developed:

- Roadway section and profile;
- Section cross slope, pivot and profile point, and ditch section;
- Grades, vertical curves, super transitions and sight distances.
- Horizontal **and** vertical sight distances;
- Vertical and horizontal clearances;
- Drainage, signing, illumination, utilities, signals, etc.
- **A project will not be approved** until all design elements meet WSDOT standards and WSDOT Design Manual criteria.
- Some people may informally refer to the Plan for Approval as the “chan plan” or channelization plans, it should be noted that these are **not** the channelization sheets found in a PS&E or full package submittal.
- References and standards commonly used in transportation design include:
 - WSDOT Design Manual
 - WSDOT Plans Preparation Manual
 - WSDOT Standard Plans
 - WSDOT Highway Surveying Manual
 - WSDOT Olympic Region Development Services Developer Agreement Guidebook
 - FHWA Roundabouts: An Informational guide
 - WSDOT Olympic Region Pavement Marking Policy
 - WSDOT Standard Specifications
 - WSDOT Bridge Design Manual
 - WSDOT LAG Manual
 - AASHTO Green Book
 - Plans For Approval Checklist
 - Highway Capacity Manual
 - MUTCD
 - WSDOT Traffic Manual

ATTACHMENTS (that may be required)

- A) Plots of wheel tracks of design vehicle(s) for each turning movement
- B) As appropriate a discussion of design elements that were considered and resolved for the plan for approval;
- C) New interchange alignments shall have roadway sections and profiles with superelevation diagrams.
- D) Approved deviations.

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Roadway Geometrics Deviations shall be listed on the PFA in a text block below the Design Data Box, example is provided below:

Example
Only

DESIGN DATA FOR NHS ROUTE NON-INTERSTATE I2 SAFETY IMPROVEMENTS		
DESIGN CRITERIA	EAST JET PLANE STREET	SR 777
FUNCTIONAL CLASSIFICATION	COLLECTOR	URBAN PRINCIPAL ARTERIAL
DESIGN MATRIX	5-9	3-7
DESIGN CLASS	MDL-4	P-6
ACCESS CONTROL	FULL	CLASS 3
TERRAIN	LEVEL	LEVEL
DESIGN SPEED	35 MPH	35 MPH
POSTED SPEED	35 MPH	35 MPH
DESIGN VEHICLE	WB 67	WB 67
PERCENT TRUCKS	10% +	10% +
APPROVED ROADWAY GEOMETRICS DEVIATIONS		DATE APPROVED
DEVIATION APPROVED 31-FEBRUARY-1899 BY HQ DESIGN TO USE A RADIUS OF 45' AT THE NORTHWEST CORNER OF THE INTERSECTION .		31-FEB-1899

Sources
Informational only (DO NOT put on plans)
State Highway Log Design Manual CH. 440.04
WSDOT Design Manual CH. 325
WSDOT Design Manual CHS. 410, 430, 440
R/W plans, as-builts, State Master Plan for Access (HQ Access Office)
State Highway Log, WSPMS WSDOT Design Manual CH. 440.05
WSDOT Design Manual CHS. 410, 430, 440
State Highway Log, Field Review
Traffic analysis, Field Review
Traffic analysis, Field Review

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GENERAL REQUIREMENTS


#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
1				Plans shall be in English units and clear and easy to read.	
2				Minimum Scale 1" = 50 ft. Interchange plans can use 1" = 100 ft., <i>if</i> enough detail can be clearly shown.	
3				The final plan(s) shall be on 22" X 34" mylar sheet(s). All final sheets shall be stamped, signed and dated by the P.E.	Review submittals, marked "Preliminary", need not be stamped or signed.
4				A minimum of 1 full size and 2 half-size plan sheets are required for reviews and submittal.	
5				Plans shall be clear and legible when reduced to half-size.	
6				Text shall read left to right as viewed from the bottom of the plan sheet or the right side of the plan sheet.	
7				Design must meet WSDOT Design Manual, MUTCD (latest adopted version), and other appropriate design standards, guidelines, or requirements identified for the new construction.	Include profiles for main line and crossroad. [WSDOT Design Manual 910.13(2)]
8				Does the design meet American with Disabilities Act (ADA) requirements?	
9				Signature blocks for approval placed within the title block or at the bottom of the plan sheet shall include the wording, "Assistant Administrator for Olympic Region Project Development" and "Region Traffic Engineer". Elsewhere the block should state, "Geometrics approved within State Highway right-of-way only" or "Geometrics approved" if all channelization is entirely within State Highway right-of-way.	
10				Title block includes: State Route Number on 1 st line, Project name or intersection/interchange name on 2 nd line, and Milepost (MP) on 3 rd line.	The name of the plan sheet is: <u>Plan for Approval.</u>
11				Have deviations been approved? (See example deviation box on page 3 of 11)	Deviations must be submitted and approved prior to final <i>signature</i> approval of the plan.

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PLAN SHEET - EACH PLAN SHEET SHALL INCLUDE THE FOLLOWING:

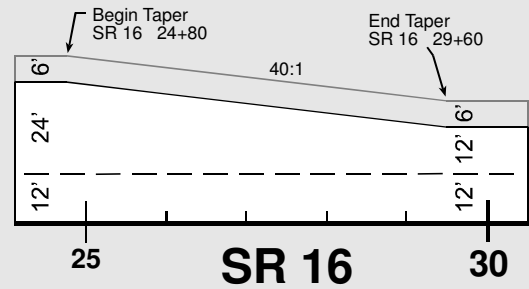
#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
12				A scale bar and north arrow. Carefully check match lines to insure they match.	Matched segments on the same sheet oriented differently should have their own North arrow.
13				Township and Range at top of sheets. All section lines shall be shown and labeled.	
14				Standard symbols and text, e.g. Township, Range, etc. per Chapter 5 in the WSDOT Plans Preparation Manual are recommended.	
15				Existing features are dashed. Existing features shall not be shown within the <i>new</i> construction limits.	
16				New features are solid. New features and geometry (edge lines, centerline, stop bars, sidewalks, etc.) shall be the proposed [solid] type throughout the new construction limits.	
17				Show street and highway alignments with stationing, names and/or designations. Stationing should have a prefix, with the possible exception of mainline stationing. Stationing must be from left to right. An example of the desirable tick mark set-up and stationing call out is provided  .	
18				Label all centerline alignments and tangent bearings.	
19				Curve Data Box shall include: <ul style="list-style-type: none"> • PI station, Delta, Radius, Tangent, Length, % Super; • Curve data for each curve shall appear once in the plans on the sheet where the PI appears; • If the PI is beyond the limits of the job and not shown on any of the plan sheets, but a portion of the curve is shown, place the curve data in the curve data box on the sheet that is nearest to its PI. • If a curve is not superelevated place a “-“ in the box, not a zero; • Show the P.T. and P.C. in the plan itself; show the P.I. in the curve data box only. • Check to insure that the P.T.’s, P.C.s, and bearings shown on the plans match with the curve data box. 	
20				Place mileposts & equations at the intersection of centerline alignments.	

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#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
21				Label the angles between centerline alignments at intersections, if they are both tangent where they intersect.	
22				Label all lane, shoulder and sidewalk widths. <ul style="list-style-type: none"> Widths shall be shown at beginning and end of the new construction (where they match into existing), match lines, and at all width changes. Define tapers: (All tapers should show beginning and ending station and width OR beginning station, taper rate and width.) One example of how to define a taper rate is provided in the box to the right.  	
23				Label all corner radii of intersections and new or revised road approaches as measured at edge of traveled way.	See Right-Turn Corner Design Manual Figure 910-7 and Design Manual Chapter 920.
24				Show and label intersection Left-Turn turning paths and radii.	
25				Show all pavement markings, stop lines, traffic arrows, sidewalk ramps, etc. but do not call them out. One exception: <u>TRAFFIC</u> curb/curb type shall be called out.	Olympic Region Pavement Marking Policy http://www.wsdot.wa.gov/regions/olympic/development/services/pdf_files/OR%20Pavement%20Marking%20Policy.pdf
26				Label bus pullout widths, lengths and tapers.	Check design criteria.
27				Show and label WSDOT and crossroad right-of-way, limited access control and turnback lines on the plan sheet(s).	
28				Is there adequate right-of-way?	
29				Where new construction matches into existing, show a minimum of 100 feet of existing geometry.	
30				Show directional arrows, indicating direction of traffic flow near the beginning and end of the project, in the required 100 feet of existing roadway.	

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31				Show location and type of channelization where raised islands and channelizing curbs are used. Define island geometry.	If useful provide an enlargement detail (1" = 20')
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INTERCHANGE PLANS SHOULD ALSO INCLUDE:

#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
32				Label gore area radii.	
33				Label median width for divided highways (if there is barrier in the median, insure that it is indicated).	
34				Check pavement widths on structures for design minimums.	
35				Check ramp acceleration and deceleration lengths, which start and stop when they taper to 12 feet on the mainline, regardless of ramp width.	
36				If there are enforcement areas, length and width are the only measurements to be shown.	

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DESIGN CRITERIA (DESIGN DATA BOX):

If the plan is made up of more than one sheet, this information needs only to be on the first sheet.
Also list design information for all cross streets.

#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
37				The title of the design data table shall contain the type of route (NHS, non-NHS, interstate or non-interstate), funding type (I2, P1, etc.), and the type of improvement. <i>EXAMPLE: Design Data for NHS Route, non-interstate, I2 Safety Improvements.</i>	<i>NOTE: This is standard for WSDOT Projects. For local agency and/or development services projects the funding type is not required.</i>
38				Functional Classification, e.g. interstate, urban principal arterial, rural minor arterial, etc. (State Highway Log).	
39				Design Matrix used, e.g. 3-5 (the first number is the matrix number, the second number is the matrix row, see WSDOT Design Manual Chapter 325).	
40				Design Class, e.g. MDL-7, P-3, etc., (Design Manual Ch. 4).	Cities and counties can be consulted for design classification of local crossroads.
41				Access Control: Limited Access (Full, Partial or Modified) or Managed Access (class I, II, III, IV, or V) – see Development Services web site at: http://www.wsdot.wa.gov/regions/olympic/developmentservices/	
42				Terrain – mountainous, rolling, level (State Highway Log).	
43				Design Speed (MPH) (Design Manual sections 440 and 940).	
44				Posted Speed (MPH), (State Highway Log). http://www.wsdot.wa.gov/mapsdata/tdo/statehighwaylog.htm	
45				Design Vehicle (WB-40, WB-50, WB-67, SU, P, BUS, etc.) see section 910.05 in the Design Manual.	
46				Percent Trucks (one source is the WSPMS).	

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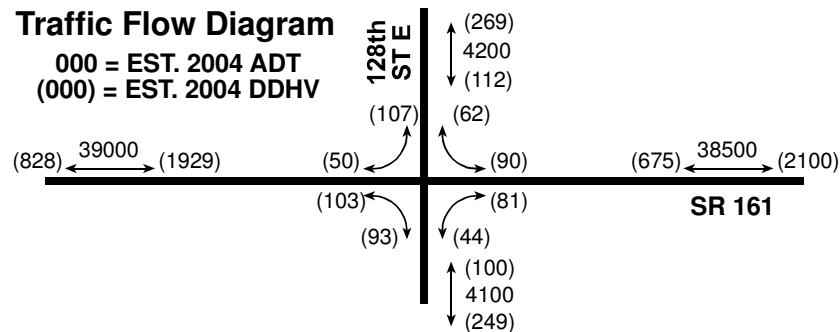
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TRAFFIC DATA DIAGRAM

A Traffic Data Diagram for the present year is needed for intersections of all project type. Mobility projects require an additional diagram showing data **20 years from the year construction will begin (not from the present year)**.

NOTE: For developer projects use present year data and the “horizon year data” also referred to as the “full build-out year data. Obtain guidance from the WSDOT Olympic Region Traffic Office or Development Services office.

#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
47				Show the Directional Design Hourly Volume (DDHV) for each turning and through movement.	Example shown below.
48				Show the Average Daily Traffic (ADT) for the through movements only	Example shown below.



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OTHER CONSIDERATIONS

#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
49				Provide clearly identified plots of design vehicle wheel tracking for all turning movements. Ensure that each movement can be made without encroaching on curbs, traffic islands, sidewalks, or leaving the pavement (see Design Manual 910.05). Encroaching on an adjacent lane in the same direction or paved shoulder may be permissible with justification.	<i>NOTE: Turning plots (AutoTurn, etc.) should NOT be place on the PFA but should be submitted on separate sheets as backup material.</i>
50				For projects where proposed roadway shoulders are less than 4 feet, has the bike/ped coordinator (currently TJ Nedrow) been consulted to determine impacts?	

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ITEMS *NOT* TO SHOW ON THE PLAN FOR APPROVAL

#	YES	NO	N/A	PLAN FOR APPROVAL ITEM	NOTES/REVIEW COMMENTS
51				Do not show background topography.	
52				Do not show contours.	
53				Do not show existing lane/edge stripes within the new construction limits.	
54				Do not show illumination.	
55				Do not show signing.	
56				Do not show street lighting, signal standards or loops.	
57				Do not show utilities.	
58				Do not show drainage.	
59				Do not show guardrail.	
60				Do not show vicinity map.	
61				Do not show legends or notes	

NOTE: The **design** proposed via the plan for approval will of course have taken these items into account.

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PLAN FOR APPROVAL SUBMITTAL PROCESS

*Note: The Project Office/ Local Programs/ or Developer Services (PEO/ LP/ DS) will work with the Traffic Analysis Office to develop the **Preliminary** Plan For Approval (PFA) during the Scoping/Planning Stage of PEO projects or the Traffic Impact Analysis Stage of LP or DS projects.*

PEO and LP Initiated PFAs

- The PEO or LP sends one full size and 3 half-size copies of the PFA to the Plans Office. Concurrently the PEO or LP sends one full size and 3 half sized copies to the Traffic Office.
- The Traffic Office transmits comments back to the Plans Office. The Plans Office reviews the comments from traffic to resolve conflicts (if any). The plans office will take the lead to resolve conflicts.
- The Plans Office transmits complete package of comments back to Project Office.

DS Initiated PFAs

- DS sends one full size and 3 half-size copies of the PFA to the Plans Office. Concurrently DS sends one full size and 3 half sized copies to the Traffic Office.
- The Traffic Office and Plans office transmit comments back to DS. DS will take the lead to resolve conflicts.
- DS transmits the complete package of comments to the Developer. Typical review time is 2 weeks.